

GeoDesign Research on Land Use Changing Spatial–Temporal Database

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SUMMARY

The objective of this research is to build a land use changing spatial-temporal database within a specific research area and implement the GeoDesign concept, along with this database, to point out strategic decisions and planning policies of land use management for this area. First, this article discussed the development of geodatabase on different time and spatial dimensions and gave a solution on how to add time dimension to a common land use changing spatial database. Taking Liangjiang industrial zone as the research area, we designed and built the Liangjiang industrial zone land use changing spatial-temporal database for further use. Then, this article introduced a new concept “GeoDesign” and researched on how to apply this new idea into land use management work. At last, based on the land use policy of China and the Liangjiang industrial zone land use changing spatial-temporal database we built, we “geodesigned” the land use changing procedure for Liangjiang industrial zone and answered the following questions: (1).How to use the land use changing spatial-temporal database to describe the land use status within Liangjiang Industrial zone. (2).How the land use management works within Liangjiang industrial zone. (3).Whether the land use management works properly or not. (4).Based on the land use changing spatial-temporal database, under the help of geodesign, how to plan the future land use within Liangjiang industrial zone. (5).What impacts would be made to Liangjiang industrial zone if the land use is changed as we designed. (6).How to make best land use management decisions and plans for Liangjiang industrial zone.